

All-In-One (HV) (5-20) kW

Smarter Power Better Life





ALL-IN-ONE 5-20kW

Compared With Separate Installation



All-in-one

after-sales service

- 10-year warranty. Replace new machines instead of repairing.*
- No need to worry about after-sales between inverters and batteries of different brands.
- * For critical parts quality issues.

Saves

20% space

- Integrated humanized design, removed redundant cables.
- · Adds points to beauty and attractiveness.





20% reduction in installation time

- Stack installation with Plug & Play connection.
- Makes the installation process time-saving, cost-effective and worry-free.

Integrated AC Charger, Plug & Play

• Charging electric vehicles with clean energy, effectively save charging costs.



All-in-one System Three Phase (HV) (10-20) kW

Type Designation	All-in-one sys-10kW-TH PRO	All-in-one sys-15kW-TH	All-in-one sys-20kW-TH					
PV (input)								
Max. recommended PV array power [Wp]	20000	30000	40000					
Vax. PV input voltage* [V]	20000	1000	40000					
Rated PV input voltage [V]	1000 650							
start-up input voltage [V]	150							
MPPT voltage range [V]	150-950							
No. of MPPT/Strings per MPPT	3 (2/1/1) 3 (2/2/1)							
Max. PV input current [A]	64 (32/16	,	80 (32/32/16)					
Max. DC short-circuit current [A]	80 (40/20		100 (40/40/20)					
	50 (40/20	, 20,	100 (40/40/20)					
Battery								
Battery type	LiFePO4 Prismatic Cell							
Max. charge/discharge current [A]	30/30							
Battery voltage range [V]	100-800							
Nominal capacity range	9.6 kWh-25.6 kWh (3.2 kWh / 50 Ah per module)							
Number of connectable modules	Max. 8 modu	ules for each stack, Max. 4 stacks in parallel (102.4kWh)					
Backup (output)								
			T					
Rated output power (off-grid mode) [VA]	10000	15000	20000					
Peak output power** (off-grid mode)	16800 W / 16800 VA, 10s	25500 W / 25500 VA, 10s	32000 W / 32000 VA, 10s					
Max. output power (on-grid mode)		43000 W / 43000 VA						
lax. output current (on-grid mode) [A]	3*63							
Backup switching time [ms]	≤4							
Rated voltage [V]		3/N/PE, 220/380; 230/400; 240/415						
requency range [Hz]	50/60							
Total harmonic distortion		≤2						
THDv, rated power, linear load) [%]		≥∠ 						
Grid (input/output)								
Max. AC power from grid		43000 W / 43000 VA						
Rated AC output power [VA]	10000	15000	20000					
Max. AC output power [VA]	10000	15000	20000					
ባax. AC output current [A]	15.2 22.8 30.3							
Rated AC voltage [V]	3/N/PE, 220/380; 230/400; 240/415							
AC voltage range [V]	270-480							
Rated grid frequency [Hz]	50/60							
Grid frequency range [Hz]	45-55/55-65							
Total harmonic distortion (THDi, rated power) [%]		<3						
Power factor at rated power/		> 0.99/0.8.leading to 0.8 lagging						
Adjustable power factor								
Effciency								
Max. effciency/European effciency [%]	98.00/97.50	98 10	/97.60					
7 1 721			,					
Protection & Function								
Parallel*	Master-slave mode							
Surge protection	Type II, DC and AC							
Overvoltage category	II DC and III AC							
Protective class	Class I							
Grid monitoring		Yes						
OC reverse polarity protection		Yes						
Battery input reverse polarity protection	Yes							
nsulation monitoring								
AC short-circuit protection	Yes Yes							
Residual current protection	Yes							
	Yes Yes							
DC switch (PV)		Yes						
OC switch (PV) Over-heat protection		Yes Yes						
OC switch (PV) Over-heat protection NFCI		Yes						
OC switch (PV) Over-heat protection NFCI		Yes Yes						
OC switch (PV) Over-heat protection NFCI General Data		Yes Yes						
OC switch (PV) Over-heat protection AFCI General Data Oppology (PV/Battery)		Yes Yes OPT						
OC switch (PV) Over-heat protection NFCI General Data Copology (PV/Battery) Degree of protection		Yes Yes OPT Transformerless						
OC switch (PV) Over-heat protection NFCI General Data Gopology (PV/Battery) Degree of protection Mounting method		Yes Yes OPT Transformerless IP65						
OC switch (PV) Over-heat protection NFCI General Data Topology (PV/Battery) Degree of protection Mounting method Operating ambient temperature range [°C]		Yes Yes OPT Transformerless IP65 Floor-standing						
DC switch (PV) DVer-heat protection AFCI General Data Topology (PV/Battery) Degree of protection Mounting method Departing ambient temperature range [°C] Storage temperature [°C]		Yes Yes OPT Transformerless IP65 Floor-standing -25-60 (Derating above 45)						
OC switch (PV) Over-heat protection AFCI General Data Topology (PV/Battery) Degree of protection Mounting method Operating ambient temperature range [°C] Storage temperature [°C] Allowable relative humidity range [%]		Yes Yes OPT Transformerless IP65 Floor-standing -25-60 (Derating above 45) -20-45 (≤1 Month)/-20-25 (≤6 Months)						
OC switch (PV) Over-heat protection NFCI General Data Topology (PV/Battery) Oversee of protection Mounting method Operating ambient temperature range [°C] Storage temperature [°C] NILOWABLE relative humidity range [%] Cooling method		Yes Yes OPT Transformerless IP65 Floor-standing -25-60 (Derating above 45) -20-45 (≤1 Month)/-20-25 (≤6 Months) 5-95						
DC switch (PV) DVer-heat protection AFCI General Data Topology (PV/Battery) DVegree of protection Mounting method DVerating ambient temperature range [°C] Storage temperature [°C] Allowable relative humidity range [%] Cooling method Noise (Typical)		Yes Yes Yes OPT Transformerless IP65 Floor-standing -25-60 (Derating above 45) -20-45 (≤1 Month)/-20-25 (≤6 Months) 5-95 Natural convection 35 dB (A)						
DC switch (PV) DVer-heat protection AFCI General Data Topology (PV/Battery) DVegree of protection Mounting method DVerating ambient temperature range [°C] Storage temperature [°C] Allowable relative humidity range [%] Cooling method Noise (Typical) Max. operating altitude [m]		Yes Yes Yes OPT Transformerless IP65 Floor-standing -25-60 (Derating above 45) -20-45 (≤1 Month)/-20-25 (≤6 Months) 5-95 Natural convection 35 dB (A) 2000						
OC switch (PV) Over-heat protection AFCI General Data Topology (PV/Battery) Degree of protection Mounting method Operating ambient temperature range [°C] Millowable relative humidity range [%] Cooling method Noise (Typical) Max. operating altitude [m] Display		Yes Yes Yes OPT Transformerless IP65 Floor-standing -25-60 (Derating above 45) -20-45 (≤1 Month)/-20-25 (≤6 Months) 5-95 Natural convection 35 dB (A) 2000 LED						
DC switch (PV) Dver-heat protection AFCI General Data Topology (PV/Battery) Degree of protection Mounting method Dperating ambient temperature range [°C] Storage temperature [°C] Akllowable relative humidity range [%] Cooling method Noise (Typical) Max. operating altitude [m] Display Communication		Yes Yes Yes OPT Transformerless IP65 Floor-standing -25-60 (Derating above 45) -20-45 (≤1 Month)/-20-25 (≤6 Months) 5-95 Natural convection 35 dB (A) 2000 LED 2*RS485/1*CAN/WLAN						
DC switch (PV) Dver-heat protection AFCI General Data Topology (PV/Battery) Degree of protection Mounting method Dperating ambient temperature range [°C] Storage temperature [°C] Allowable relative humidity range [%] Cooling method Noise (Typical) Max. operating altitude [m] Display Communication DI/DO		Yes Yes Yes OPT Transformerless IP65 Floor-standing -25-60 (Derating above 45) -20-45 (≤1 Month)/-20-25 (≤6 Months) 5-95 Natural convection 35 dB (A) 2000 LED 2*RS485/1*CAN/WLAN 4*DI/2*DO/DRM0						
DC switch (PV) DVer-heat protection AFCI General Data Topology (PV/Battery) DVegree of protection Mounting method DVerating ambient temperature range [°C] Storage temperature [°C] Allowable relative humidity range [%] Cooling method Noise (Typical)		Yes Yes Yes OPT Transformerless IP65 Floor-standing -25-60 (Derating above 45) -20-45 (≤1 Month)/-20-25 (≤6 Months) 5-95 Natural convection 35 dB (A) 2000 LED 2*RS485/1*CAN/WLAN						

^{*} Input voltage exceeding the MPPT operating voltage range triggers inverter protection

^{**} Can be reached only if PV and battery power is sufficient

^{***} Detail refer to inverters parallel configuration in User Manual

All-in-one System Batteries (HV) (9.6-25.6) kWh

Type Designation	3 modules	4 modules	5 modules	6 modules	7 modules	8 modules**			
Technical data									
Usable energy* [kWh]	9.60	12.80	16.00	19.20	22.40	25.60			
Depth of discharge			Max.100% D	OD (settable)					
Module parameter	64V 50Ah 640*172*360mm 33.3±0.5kg								
Cell type	LiFePO4 Prismatic Cell								
	3	4	5	6	7	8**			
System configuration	4	4 d							
Cell configuration	1P60S	1P80S	1P100S	1P120S	1P140S	1P160S			
Nominal voltage [V]	192	256	320	384	448	512			
Operating voltage range [V]	171-216	228-288	285-360	342-432	399-504	456-576			
Max. continuous current*** [A]	30								
Max. continuous power*** [kW]	5.76	7.68	9.60	11.52	13.44	15.36			
Short circuit current [A]	40								
Communication	CAN / RS485								
Weight**** [kg]	152	185	218	251	284	317			
Dimensions (W*H*D)****[mm]	640*1012*360	640*1172*360	640*1332*360	640*1492*360	640*1652*360	640*1812*360			
Operating temperature [°C]	Charge: 0-50 / Discharge: -20-50								
Storage temperature [°C]	-20-45 (≤1Month) / -20-25 (≤6 Months)								
Humidity [%]	5-95								
Altitude [m]	≤2000								
Degree of protection		IP65 (Indoor / Outdoor)							
Cooling		Natural convection							
Installation location		Floor-standing							
Display		SOC indicator, Status indicator							
Warranty	10 Years								

^{*} Test conditions: 3.0V-3.5V, 0.2C Charge (CC-CV) and discharge at 25±3°C, 100% depth of discharge (DOD);

^{**} Single Phase All-in-one system are not applicable to this configuration.

^{***} Max. Continuous Current/Power derating will occur related to temperature / SOC / Humidity;

^{****} Measured based on the Three Phase All-in-one system. Only slight differences in height&weight between different models.



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32 years

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2024 Turnover

1400+

1411 Qualified engineers are the driving force behind the exceptional R&D progress

TOP 3

Sieyuan思源电气 Electrical Equip. Manufacturer

22

22 Manufacturing bases

100+

With 10,000+ employees in 100+ countries and regions

1,000kV

Full range product: 10kV -1,000kV

esGrid Grid-level energy storage

Sieyuan Utility Scale BESS



C&l and Residential BESS







Swatten Europe Case



















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Swatten APAC Case

















Compatible Battery Brand



Dyness















* For detailed list please contact our technical team





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